

**ABSTRACT OF THE DISCLOSURE**

A method and apparatus for non-contact determination of liquid concentrations such as the content of water, oil, dye, paint, fuel, glue, etc., in a moving or stationary mass of products such as wood, paper, powders, fabrics, sand, bricks, concrete, plants, and the like, or in other liquids such as oil spills in water, is provided. The method comprises measuring the passive emissivity of a substance, using an imaging radiometer. It has been found that an emissivity image may be used to quantify the liquid content in a substance. The invented method allows for non-contact, rapid and continuous in-line measurements.